

Isolation and Molecular Identification of *Campylobacter* Jejuni from Poultry and Evaluation of Their Susceptibility to Some Drug Plant Extracts

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Background & Objectives: Nowadays overused of antibiotics culminated in developing antibiotic resistant *Campylobacter* therefore, treatment of campylobacteriosis considered problematic. Hence major purpose of this study was isolation and identification of *Campylobacter jejuni* from poultry and determines their susceptibility to some drug plant extract.

Methods: To perform this study, 125 poultry fecal samples were collected and subjected for detection of *Campylobacter jejuni*. In total, strains of *Campylobacter jejuni* were isolated and identified by phenotypic tests and 16SrRNA gene sequencing. Then drug plant extracts of Shallot, Querecus, Garlic and Red tea were obtained and extracted by water and ethanol (70%). The experiment was carried out by cultivation of *Campylobacter jejuni* isolates onto meuller hinton agar and four wells were made in the agar by sharp bore. Then 100 µl of each extract was added into the well and the plates were incubated at 37C° under microaerophilic conditions. After 48h, all the plates were examined for observation of inhibition growth zone around the wells.

Results: The results obtained indicated that all *C. jejuni* isolates were resistant to water extract of Garlic and red tea however, three strains of them were sensitive to water extract of shallot (14mm) and Querecus (16mm). In addition, all isolated strains were sensitive to alcohol extract of shallot (17mm), Querecus (28mm), Garlic (22mm) and red tea (24mm).

Coculusion: In general, some drug plants viz., shallot, Querecus, Garlic and red tea have antimicrobial effect on *Campylobacter jejuni*. Therefore, these native drug plants of our country could be used as remedy for treatment of campylobacteriosis instead of antibiotics.

Keywords: *Campylobacter* Jejuni; Antimicrobial Susceptibility; Garlic; Red Tea; Querecus; Shallot